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Remarks

Applicants appreciate the indication that claim 4 recites allowable subject matter.

Applicants hereby add claims 24-28. Accordingly, claims 1-4, 6-11, 14-16, 18-21, and 23-28 are pending in the present application.

Claims 16 and 18 stand rejected under 35 USC 102(b) for anticipation by U.S. Patent No. 5,933,676 to Ohno. Claims 1-3, 6-7, 10-11, 15, 19, and 23 stand rejected under 35 USC 103(a) for obviousness over Ohno in view of U. S. Patent No. 6,499,821 to Nozawa. Claim 8 stands rejected under 35 USC 103(a) for obviousness over Ohno as modified by Nozawa and further in view of U. S. Patent No. 5,148,218 to Nakane et al. Claims 9, 14, and 20 stand rejected under 35 USC 103(a) for obviousness over Ohno as modified by Nozawa and further in view of Japanese Patent No. 11143151 A to Nakahara et al. Claim 21 stands rejected under 35 USC 103(a) for obviousness over Ohno in view of Nakane et al.

Applicants respectfully traverse the rejections and urge allowance of the present application.

On page 4 of the Office Action, it is stated that Ohno fails to disclose or suggest limitations of claim 1. The examiner relies upon the teachings of Nozawa to cure the deficiencies of Ohno. The reliance is misplaced.

Referring to the 103 rejection of claim 1, for a proper *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, e.g., MPEP §2143 (8th ed.).

The Examiner on page 4 of the Action states that the combination is appropriate so that controls of devices within an image forming apparatus in which temperature affects can be better monitored. Applicants submit the alleged motivation is improper for a 103 rejection.

The motivation for forming the combination must be something other than hindsight reconstruction based on using Applicant's invention as a road map for such a combination. See, e.g., *Interconnect Planning Corp. v. Feil*, 227 USPQ 543,

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551 (Fed. Cir. 1985); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990).

The Federal Circuit discussed proper motivation *In re Lee*, 61 USPQ 2d 1430 (Fed. Cir. 2002). The motivation identified in the Office Action is akin to the conclusory statements set forth in *In re Lee* which were found to fail to provide the requisite motivation to support an obviousness rejection. The Court in *In re Lee* stated the factual inquiry whether to combine references must be through and searching. It must be based on objective evidence of record. The Court in *In re Fritch*, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) stated motivation is provided only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. The *Lee* Court stated that the Examiner's conclusory statements in the *Lee* case do not adequately address the issue of motivation to combine. The Court additionally stated that the factual question of motivation is material to patentability and can not be resolved on subjective belief and unknown authority. The Court also stated that deficiencies of cited references cannot be remedied by general conclusions about what is basic knowledge or common sense. The Court further stated that the determination of patentability must be based on evidence.

In the instant case, the record is entirely devoid of any evidence to support motivation to combine the teachings apart from the bald conclusory statements of the Examiner which are insufficient for proper motivation as set forth by the Federal Circuit. The Office cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims but must set forth rationale on which it relied. Statements set forth in the present Office Action are akin to the alleged motivation discussed *In re Lee* and accordingly are insufficient to combine the reference teachings. The 103 rejection of claim 1 is improper without the proper motivation and Applicants respectfully request allowance of claim 1 in the next action.

Ohno positively discloses at col. 5, lines 1-12 that printer controller 103 receives information on changes in printing conditions such as environmental changes (e.g., temperature). Such teachings also state that the printer controller also receives changes in *internal conditions* of the printer illustrating that that the environmental changes including temperature are external of the printer. These

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teachings are also supported by sensor unit 158 of the printer engine configured to detect *environmental conditions including changes in external temperature* of the printer as disclosed in col. 7, lines 7-15. Accordingly, Ohno is clearly and unambiguously concerned with *initiating calibration operations responsive to monitoring of external temperature*.

Nozawa is replete with teachings that temperature is only sensed in the ejecting region or portion during imaging operations and not environmentally. Fig. 2 of Nozawa discloses temperature sensor 132 associated with an ejecting region or portion 103 of one of print heads 1A-1D and as disclosed in col. 6, lines 1-10. Col. 6, lines 35-45 are even more telling in that the temperature sensor 132 may be formed on a substrate of the ejecting portion 103, in a process of forming the ejecting heater 131, or configured as a thermistor attached to the printing head. It is further stated, that the temperature sensors is provided to estimate a temperature from a driven condition of the ejecting portion. Further, it is clear that the head history of Nozawa is utilized to adjust imaging correction operations as set forth in col. 9, lines 18+.

The bald cursory motivational rationale of "can be better monitored" is conclusory and fails to comply with the standard of proper motivation set forth by the Federal Circuit. *There is absolutely no motivation to combine inapposite teachings regarding the specific monitoring of temperature in the ejecting portion to implement corrections during imaging of Nozawa with the configuration of Ohno directed towards monitoring external temperature.* There is absolutely no evidence that Ohno is deficient with respect to external temperature sensing to motivate one to look to another reference for additional teachings or that combining the unrelated ejecting portion temperature sensing of Nozawa would result in "better monitoring" as baldly alleged in the Office Action.

The motivation only results from improper reliance upon Applicant's disclosure and claim 1 is allowable for at least this reason.

Even if the references are combined, the combination fails to teach or suggest limitations of claim 1. In particular, claim 1 recites storage of data to provide the *history of the environmental conditions to which the device has been exposed*. The Office Action on page 4 notes that Nozawa measures temperature of a print head not environmental conditions. Nozawa is directed towards monitoring

temperature of the print head to implement corrections. There is no teaching or suggestion of monitoring environmental conditions. Applicant also notes that Ohno is not directed towards storage of data indicative of an environmental condition but is directed towards setting a flag responsive to changes in external temperature and once the flag is set, the printer performs the calibration (even during a print job) as set forth in col. 10. Accordingly, there is no need to provide a history in Ohno inasmuch as the calibration is performed on the fly. Further, even if combined, the combination of prior art fails to disclose or suggest ***storage of a history of environmental conditions to which the device has been exposed*** as claimed. Limitations of claim 1 are not taught nor suggested by the prior art and claim 1 is allowable for at least the above numerous reasons.

The claims which depend from independent claim 1 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

For example, claim 6 recites that the processing circuitry is configured to control the ***storage of data at a predetermined moment in time***. No teachings are identified in Ohno or Nozawa which allegedly disclose limitations of claim 6. Further, Ohno sets a flag when temperature changes and not at predetermined moments in time as claimed. Nozawa discloses the temperature sensor estimating temperature from a driven condition of the ejecting portion and not at predetermined moments in time as claimed. Claim 6 is allowable for at least these additional reasons.

The Office Action fails to identify reference teachings which allegedly disclose limitations of claim 6. In the event that a rejection of the claims is maintained with respect to the prior art, or a new rejection made, Applicants respectfully request identification ***in a non-final action*** of elements which allegedly correspond to limitations of the claims in accordance with 37 C.F.R §1.104(c)(2). In particular, 37 C.F.R §1.104(c)(2) provides that *the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified*. Further, 37 C.F.R. §1.104(c)(2) states that the Examiner must cite the best references at their command. When a reference is complex or shows or describes inventions other than that claimed by Applicants, the particular teachings relied

upon must be designated as nearly as practicable. The pertinence of each reference if not apparent must be clearly explained for each rejected claim specified. Applicants respectfully request clarification of the rejections with respect to specific references and specific references teachings therein pursuant to 37 C.F.R. §1.104(c)(2) in a ***non-final Action*** if any claims are not found to be allowable.

Referring to claim 9, the Examiner relies upon the teachings of Nakahara in support of the rejection as allegedly disclosing the claimed environmental condition comprising humidity. Applicants submit herewith a full translation of Nakahara. Similar to Ohno, Nakahara discloses monitoring humidity to adjust control of the image forming device as set forth in paragraphs 009-010. Even if the references are combined, there is no teaching or suggestion of storing data indicative of humidity in a memory to provide a history as claimed. Claim 9 is allowable for at least this additional reason.

Turning to independent claim 11, the method recites *receiving a request within the image forming device from a source external of the device and communicating data regarding the at least one environmental condition externally of the device responsive to the receiving*. The Examiner states on page 3 of the Action that Ohno allegedly discloses that controller 103 executes calibration responsive to an instruction from panel unit 104 and external devices 101 with reference to col. 5, lines 1-12. Initially, Applicant notes that Fig. 1 clearly discloses panel unit 104 as comprising an internal component of printer 102. Further, Ohno fails to disclose or suggest device 102 receiving an external request from external devices 101 and/or any communication of data regarding an environmental conditional responsive to a received request. Col. 5 discloses controller 103 receives information from the printer engine 105 (also an internal component of device 102) and fails to disclose or suggest the claimed receiving and communicating. Even if the prior art references are combined, limitations of claim 11 are not shown nor suggested by the prior art and claim 11 is allowable for at least this reason.

Further, there is no motivation to combine the reference teachings and claim 11 is allowable for at least this additional reason.

The claims which depend from independent claim 11 are in condition for allowance for the reasons discussed above with respect to the independent claim as

well as for their own respective features which are neither shown nor suggested by the cited art.

With respect to independent claim 16, it is stated on pages 2-3 of the Office Action that the printer controller 103 performs communication which reads on the invention's "communicating." Applicants note that claim 16 recites receiving the data regarding the environmental condition from the image forming device and analyzing the data after the receiving to determine a quantitative parameter. The claimed receiving and analyzing are not shown nor suggested by the prior art. The receiving via controller 103 mentioned on page 2 of the Action is irrelevant to the claimed receiving from the image forming device inasmuch as controller 103 is internal of device 102. Further, the teachings of Ohno regarding *calibration* fail to disclose or suggest determination of the *quantitative parameter* as claimed. Page 3 of the Action alleges that "executes calibration" reads on the determination of the quantitative parameter as claimed. Applicant disagrees. Applicants are not concerned in claim 16 with calibration but with determining the quantitative parameter and testing as positively recited in claim 16. There is no receiving the data from the device in the prior art as claimed, or analyzing the data after the receiving to determine the quantitative parameter as claimed. Limitations of claim 16 are not shown nor suggested and claim 16 is allowable for at least this reason.

There is absolutely no equivalence in the art of "calibration" to the claimed "quantitative parameter" as alleged in the Action. Accordingly, the only source of the rejections may result from the personal knowledge of the Examiner. If claim 16 is not allowed, Applicants hereby request identification of prior art which discloses claimed limitations not found in the references of record or the submission of an affidavit in support of any rejection of the claims in a non-final Action. "[A]ssertions of technical facts in areas of esoteric technology must always be supported by citation of some reference work" and "allegations concerning specific 'knowledge' of the prior art, which might be peculiar to a particular art should also be supported." *In re Ahlert*, 424 F.2d 1088, 165 USPQ 418, 420-421 (CCPA 1970).

The claims which depend from independent claim 16 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by

the cited art.

Referring to the rejection of claim 21, it is stated that Ohno fails to disclose or suggest an internal power source. Thereafter, it is alleged on page 6 of the Action that Nakane cures the deficiencies of Ohno. Applicants disagree.

There is no motivation to combine the reference teachings. It is baldly alleged on page 6 of the Action that the combination is appropriate to so that the environmental sensors are always operating whether there is power or not supplied from the outside. Applicants submit such alleged motivation is insufficient to support the 103 rejection. **Ohno is concerned with calibration operations during imaging operations to assure good print quality** as set forth in col. 1. Accordingly, there is no need or desire for the device of Ohno to be configured to detect environmental conditions in the absence of external power when printing is not performed. Since the art fails to provide the proper motivation, the only motivation results from improper use of Applicant's disclosure. Obviousness cannot be established by a combination of references unless there is some motivation in the art to support the combination. *See ACH Hospital Systems, Inc. v. Montifiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Further, the mere fact that references *can* be combined or modified does not render the resultant combination obvious *unless the prior art also suggests the desirability of the combination*. MPEP §2143.01 citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). The Office has failed to establish a proper prima facie 103 rejection of claim 21 and claim 21 is allowable.

Referring to independent claim 23, the Office Action fails to identify any teachings which allegedly disclose or suggest the claimed **interface configured to communicate data indicative of the at least one environmental condition externally of the device or that the interface comprises a memory of a consumable** as claimed. Col. 5, lines 8+ merely disclose external communications with respect to external devices 101 via a network 106 as shown in Fig. 1. There is absolutely no teaching or suggestion of the interface comprising a memory of a consumable as claimed.

Further, there is no motivation to combine the teachings of Nozawa with the teachings of Ohno as alleged in the Action and claim 23 is allowable for at least this reasons.

Applicants respectfully request clarification of the rejections of claim 23 or

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the other claims noted above in a *non-Final action* in accordance with the CFR and MPEP if any such claims are not allowed in the next Action.

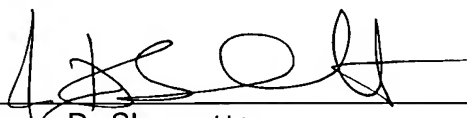
Applicants hereby add new claims 24-28 which are supported at least at Figs. 2-3 and pages 6-11 of the originally-filed application.

Applicants respectfully request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,
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By:


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